

WHAT IS CLAIMED IS:

1. A method for adjusting a signal, comprising:  
receiving a plurality of signals at an adjuster;  
determining one or more quality indicators, the one or more quality indicators  
5 comprising as least one of a power control group boundary signal, a power control  
group index, a PN code per active finger, a reverse power control bit per active finger,  
an energy per chip over noise power spectral density ratio per active finger, a channel  
estimate I/Q per active finger, an energy per bit over noise power spectral density, a  
transmit AGC signal, a total receive power, and any combination of the preceding;  
10 establishing a signal adjustment according to the one or more quality  
indicators; and  
adjusting the plurality of signals according to the signal adjustment to yield  
one or more adjusted signals.
- 15 2. The method of Claim 1, wherein:  
the plurality of signals comprise a plurality of signals received at a mobile  
device; and  
the one or more quality indicators comprise at least one of a power control  
group boundary signal, a power control group index, a PN code per active finger, an  
20 energy per chip over noise power spectral density ratio per active finger, a channel  
estimate I/Q per active finger, an energy per bit over noise power spectral density, a  
total receive power, and any combination of the preceding.
- 25 3. The method of Claim 1, wherein:  
the plurality of signals comprise a plurality of signals transmitted from a  
mobile device; and  
the one or more quality indicators comprise at least one of a power control  
group boundary signal, a PN code per active finger, a reverse power control bit per  
active finger, an energy per chip over noise power spectral density ratio per active  
30 finger, a channel estimate I/Q per active finger, a transmit AGC signal, a total receive  
power, and any combination of the preceding.

4. The method of Claim 1, wherein determining the one or more quality indicators further comprises receiving the one or more quality indicators from a baseband processor.

5 5. The method of Claim 1, wherein determining the one or more quality indicators further comprises calculating the one or more quality indicators according to the plurality of signals.

6. The method of Claim 1, wherein determining the one or more quality  
10 indicators further comprises generating a reverse power control bit according to the transmit AGC signal.

7. The method of Claim 1, wherein adjusting the plurality of signals according to the signal adjustment to yield the one or more adjusted signals further  
15 comprises adjusting at least one of a phase and an amplitude of at least one signal of the plurality of signals.

8. A system for adjusting a signal, comprising an adjuster comprising:  
an interface operable to receive a plurality of signals; and  
control logic coupled to the interface and operable to:

5 determine one or more quality indicators, the one or more quality  
indicators comprising as least one of a power control group boundary signal, a power  
control group index, a PN code per active finger, a reverse power control bit per  
active finger, an energy per chip over noise power spectral density ratio per active  
finger, a channel estimate I/Q per active finger, an energy per bit over noise power  
spectral density, a transmit AGC signal, a total receive power, and any combination of  
10 the preceding;  
establish a signal adjustment according to the one or more quality  
indicators; and  
adjust the plurality of signals according to the signal adjustment to  
yield one or more adjusted signals.

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9. The system of Claim 8, wherein:

the plurality of signals comprise a plurality of signals received at a mobile  
device; and

20 the one or more quality indicators comprise at least one of a power control  
group boundary signal, a power control group index, a PN code per active finger, an  
energy per chip over noise power spectral density ratio per active finger, a channel  
estimate I/Q per active finger, an energy per bit over noise power spectral density, a  
total receive power, and any combination of the preceding.

10. The system of Claim 8, wherein:

the plurality of signals comprise a plurality of signals transmitted from a mobile device; and

5 the one or more quality indicators comprise at least one of a power control group boundary signal, a PN code per active finger, a reverse power control bit per active finger, an energy per chip over noise power spectral density ratio per active finger, a channel estimate I/Q per active finger, a transmit AGC signal, a total receive power, and any combination of the preceding.

10 11. The system of Claim 8, further comprising a baseband processor operable to provide the one or more quality indicators to the adjuster.

12. The system of Claim 8, the control logic further operable to determine the one or more quality indicators by calculating the one or more quality indicators  
15 according to the plurality of signals.

13. The system of Claim 8, the control logic further operable to determine the one or more quality indicators by generating a reverse power control bit according to the transmit AGC signal.

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14. The system of Claim 8, the control logic further operable to adjust the plurality of signals according to the signal adjustment to yield the one or more adjusted signals by adjusting at least one of a phase and an amplitude of at least one signal of the plurality of signals.

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15. Logic for adjusting a signal, the logic embodied in a medium and operable to:

receive a plurality of signals at an adjuster;

5 determine one or more quality indicators, the one or more quality indicators comprising as least one of a power control group boundary signal, a power control group index, a PN code per active finger, a reverse power control bit per active finger, an energy per chip over noise power spectral density ratio per active finger, a channel estimate I/Q per active finger, an energy per bit over noise power spectral density, a transmit AGC signal, a total receive power, and any combination of the preceding;

10 establish a signal adjustment according to the one or more quality indicators; and

adjust the plurality of signals according to the signal adjustment to yield one or more adjusted signals.

15 16. The logic of Claim 15, wherein:

the plurality of signals comprise a plurality of signals received at a mobile device; and

20 the one or more quality indicators comprise at least one of a power control group boundary signal, a power control group index, a PN code per active finger, an energy per chip over noise power spectral density ratio per active finger, a channel estimate I/Q per active finger, an energy per bit over noise power spectral density, a total receive power, and any combination of the preceding.

17. The logic of Claim 15, wherein:

25 the plurality of signals comprise a plurality of signals transmitted from a mobile device; and

30 the one or more quality indicators comprise at least one of a power control group boundary signal, a PN code per active finger, a reverse power control bit per active finger, an energy per chip over noise power spectral density ratio per active finger, a channel estimate I/Q per active finger, a transmit AGC signal, a total receive power, and any combination of the preceding.

18. The logic of Claim 15, further operable to determine the one or more quality indicators by receiving the one or more quality indicators from a baseband processor.

5 19. The logic of Claim 15, further operable to determine the one or more quality indicators by calculating the one or more quality indicators according to the plurality of signals.

10 20. The logic of Claim 15, further operable to determine the one or more quality indicators by generating a reverse power control bit according to the transmit AGC signal.

15 21. The logic of Claim 15, further operable to adjust the plurality of signals according to the signal adjustment to yield the one or more adjusted signals by adjusting at least one of a phase and an amplitude of at least one signal of the plurality of signals.

22. An apparatus for adjusting a signal, comprising:
- means for receiving a plurality of signals at an adjuster;
  - means for determining one or more quality indicators, the one or more quality indicators comprising as least one of a power control group boundary signal, a power control group index, a PN code per active finger, a reverse power control bit per active finger, an energy per chip over noise power spectral density ratio per active finger, a channel estimate I/Q per active finger, an energy per bit over noise power spectral density, a total receive power, and any combination of the preceding;
  - means for establishing a signal adjustment according to the one or more quality indicators; and
  - means for adjusting the plurality of signals according to the signal adjustment to yield one or more adjusted signals.

23. A method for adjusting a signal, comprising:

receiving a plurality of signals at an adjuster;

determining one or more quality indicators, the one or more quality indicators comprising as least one of a power control group boundary signal, a power control group index, a PN code per active finger, a reverse power control bit per active finger, an energy per chip over noise power spectral density ratio per active finger, a channel estimate I/Q per active finger, an energy per bit over noise power spectral density, a transmit AGC signal, a total receive power, and any combination of the preceding, the one or more quality indicators determined by:

receiving a first quality indicator from a baseband processor;

calculating a second quality indicator according to the plurality of signals; and

generating a reverse power control bit according to the transmit AGC signal;

establishing a signal adjustment according to the one or more quality indicators; and

adjusting the plurality of signals according to the signal adjustment to yield one or more adjusted signals by adjusting at least one of a phase and an amplitude of at least one signal of the plurality of signals, wherein:

the plurality of signals comprise a first plurality of signals received at a mobile device;

the one or more quality indicators comprise a first quality indicator associated with the first plurality of signals, the first quality indicator comprising at least one of a power control group boundary signal, a power control group index, a PN code per active finger, an energy per chip over noise power spectral density ratio per active finger, a channel estimate I/Q per active finger, an energy per bit over noise power spectral density, a total receive power, and any combination of the preceding;

the plurality of signals comprise a second plurality of signals transmitted from the mobile device;

the one or more quality indicators comprise a second quality indicator associated with the second plurality of signals, the second quality indicator comprising at least one of the power control group boundary signal, the PN code per



active finger, the reverse power control bit per active finger, the energy per chip over noise power spectral density ratio per active finger, the channel estimate  $I/Q$  per active finger, the total receive power, and any combination of the preceding.

24. A method for adjusting a signal, comprising:  
receiving a plurality of signals at an adjuster;  
determining one or more quality indicators by performing at least one of:  
calculating at least some of the one or more quality indicators; and  
5 receiving at least some of the one or more quality indicators from an  
alternative source to a baseband processor;  
establishing a signal adjustment according to the one or more quality  
indicators; and  
adjusting the plurality of signals according to the signal adjustment to yield  
10 one or more adjusted signals.

25. The method of Claim 24, wherein calculating at least some of the one  
or more quality indicators further comprises:  
receiving signal quality information; and  
15 generating the at least some of the one or more quality indicators according to  
the signal quality information.

26. The method of Claim 24, wherein calculating at least some of the one  
or more quality indicators further comprises:  
20 receiving a transmit automatic gain control signal; and  
generating the at least some of the one or more quality indicators according to  
the transmit automatic gain control signal.

27. The method of Claim 24, wherein the one or more quality indicators  
25 comprise as least one of a power control group boundary signal, a power control  
group index, a PN code per active finger, a reverse power control bit per active finger,  
an energy per chip over noise power spectral density ratio per active finger, a channel  
estimate I/Q per active finger, an energy per bit over noise power spectral density, a  
transmit AGC signal, a total receive power, and any combination of the preceding.

28. A system for adjusting a signal, comprising an adjuster comprising:  
an interface operable to receive a plurality of signals; and  
control logic coupled to the interface and operable to:  
determine one or more quality indicators by performing at least one of:  
5 calculate at least some of the one or more quality indicators;  
and  
receive at least some of the one or more quality indicators from  
an alternative source to a baseband processor;  
establish a signal adjustment according to the one or more quality  
10 indicators; and  
adjust the plurality of signals according to the signal adjustment to  
yield one or more adjusted signals.

29. The system of Claim 28, the control logic operable to calculate at least  
15 some of the one or more quality indicators by:  
receiving signal quality information; and  
generating the at least some of the one or more quality indicators according to  
the signal quality information.

20 30. The system of Claim 28, the control logic operable to calculate at least  
some of the one or more quality indicators by:  
receiving a transmit automatic gain control signal; and  
generating the at least some of the one or more quality indicators according to  
the transmit automatic gain control signal.

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31. The system of Claim 28, wherein the one or more quality indicators  
comprise as least one of a power control group boundary signal, a power control  
group index, a PN code per active finger, a reverse power control bit per active finger,  
an energy per chip over noise power spectral density ratio per active finger, a channel  
30 estimate I/Q per active finger, an energy per bit over noise power spectral density, a  
transmit AGC signal, a total receive power, and any combination of the preceding.

32. Logic for adjusting a signal, the logic embodied in a medium and operable to:

receive a plurality of signals;

determine one or more quality indicators by performing at least one of:

5 calculating at least some of the one or more quality indicators; and

receiving at least some of the one or more quality indicators from an alternative source to a baseband processor;

establish a signal adjustment according to the one or more quality indicators;

and

10 adjust the plurality of signals according to the signal adjustment to yield one or more adjusted signals.

33. The logic of Claim 32, further operable to calculate at least some of the one or more quality indicators by:

15 receiving signal quality information; and

generating the at least some of the one or more quality indicators according to the signal quality information.

34. The logic of Claim 32, further operable to calculate at least some of the one or more quality indicators by:

receiving a transmit automatic gain control signal; and

generating the at least some of the one or more quality indicators according to the transmit automatic gain control signal.

25 35. The logic of Claim 32, wherein the one or more quality indicators comprise as least one of a power control group boundary signal, a power control group index, a PN code per active finger, a reverse power control bit per active finger, an energy per chip over noise power spectral density ratio per active finger, a channel estimate I/Q per active finger, an energy per bit over noise power spectral density, a  
30 transmit AGC signal, a total receive power, and any combination of the preceding.

36. A system for adjusting a signal, comprising:  
an antenna system operable to receive and transmit a plurality of signals;  
one or more adjusters operable to:  
determine one or more quality indicators;  
5 establish a signal adjustment according to the one or more quality  
indicators; and  
adjust the plurality of signals according to the signal adjustment;  
one or more converters operable to convert a frequency of the plurality of  
signals; and  
10 a baseband processor operable to process the plurality of signals.

37. The system of Claim 36, wherein the baseband processor is operable to  
provide at least some of the one or more quality indicators to the one or more  
adjusters.

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38. The system of Claim 36, wherein at least one of the one or more  
adjusters is operable to generate at least some of the one or more quality indicators.

39. The system of Claim 36, further comprising an alternate source  
20 operable to provide at least some of the one or more quality indicators to the one or  
more adjusters.

40. The system of Claim 36, wherein the one or more quality indicators  
comprise as least one of a power control group boundary signal, a power control  
25 group index, a PN code per active finger, a reverse power control bit per active finger,  
an energy per chip over noise power spectral density ratio per active finger, a channel  
estimate I/Q per active finger, an energy per bit over noise power spectral density, a  
transmit AGC signal, a total receive power, and any combination of the preceding.

41. The system of Claim 36, wherein:  
the baseband processor is operable to provide at least some of the one or more  
quality indicators to the one or more adjusters; and  
the one or more adjusters comprises a transmit adjuster operable to:  
5 adjust the plurality of signals; and  
provide the plurality of signals to the antenna system.

42. The system of Claim 36, wherein:  
the baseband processor is operable to provide at least some of the one or more  
10 quality indicators to the one or more adjusters;  
the one or more adjusters comprises a transmit adjuster operable to:  
adjust one or more transmit signals of the plurality of signals; and  
provide the one or more transmit signals to the antenna system; and  
the one or more adjusters comprises a receive adjuster operable to:  
15 receive one or more receive signals of the plurality of signals from the  
antenna system; and  
adjust the one or more receive signals.

43. The system of Claim 36, wherein the one or more adjusters comprises  
20 a transmit adjuster operable to:  
determine one or more quality indicators by performing at least one of:  
calculate at least some of the one or more quality indicators; and  
receive at least some of the one or more quality indicators from an  
alternative source to the baseband processor; and  
25 provide the plurality of signals to the antenna system.